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Date: August 6, 2002

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Name: Examiner Frank Lu, Ph.D., Group Art Unit 1634

Facsimile Number: 703-308-4242 (or 703-305-3014)

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Pages: 9 (including this fax transmittal sheet)

Subject: Attorney File No. DI-12
U.S. Patent Application Serial No. 09/918,063

From: Timothy L. McCutcheon, Esq. (970-493-7272 - Ext 4182)

Special Instructions: Please find attached a Preliminary Amendment and Response to Restriction Requirement.

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ATTN: BOX NON-FEE AMENDMENT
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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AUG 07 2002

GROUP 1600

In Re the Application of:

Weber, Eric R.
Jensen, Wayne A.
Chandrashekar, Ramaswamy

Serial No.: 09/918,063

Filed: July 30, 2001

Atty. File No.: DI-12

For: "CANINE TAG1 PROTEINS,
NUCLEIC ACID MOLECULES,
AND USES THEREOF"

Group Art Unit: 1634

Examiner: Lu, F.

PRELIMINARY AMENDMENT AND
RESPONSE TO RESTRICTION
REQUIREMENT

CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING
FACSIMILE TRANSMITTED TO EXAMINER FRANK LU, PhD,
AT FACSIMILE NO. 703-308-4242 OF THE U.S. PATENT AND
TRADEMARK OFFICE, COMMISSIONER FOR PATENTS,
WASHINGTON, DC 20231, THIS 6TH DAY OF AUGUST 2002.

HESKA CORPORATION

By:

Susan Gordon

Susan Gordon

Box Non-Fee AmendmentCommissioner for Patents
Washington, DC 20231

Dear Sir:

This paper is filed in response to the Restriction Requirement mailed from the U.S. Patent and Trademark Office on July 22, 2002. No fees are believed to be due with this Amendment and Response; however, if fees are due, please debit Deposit Account No. 081930.

Prior to initial examination, please enter the following amendments and reconsider the application as follows:

IN THE CLAIMS

Please cancel Claims 16-23 without prejudice or disclaimer of the subject matter thereof.

Please amend Claims 1, 2, 8-11 and 14-15 without prejudice or disclaimer of the subject matter thereof, as follows (Claims 3-7 and 12-13 are presented below unamended for the Examiner's convenience):

Sub B1

1. (Once Amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated canine cDNA or mRNA nucleic acid molecule that hybridizes with a nucleic acid molecule consisting of a nucleic acid sequence selected from the group consisting of SEQ ID NO:8 and SEQ ID NO:10 under conditions comprising (i) hybridizing in a solution comprising 1X SSC in the absence of nucleic acid helix destabilizing agents, at a temperature of about 37°C and (ii) washing in a solution comprising 1X SSC in the absence of nucleic acid helix destabilizing agents, at a temperature of about 56°C.

2. (Once Amended) The nucleic acid molecule of Claim 1, said nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO:8 and SEQ ID NO:10.

A1

3. A recombinant molecule comprising a nucleic acid molecule as set forth in Claim 1 operatively linked to a transcription control sequence.

4. A recombinant virus comprising a nucleic acid molecule as set forth in Claim 1.

5. A recombinant cell comprising a nucleic acid molecule as set forth in Claim 1.

6. A composition comprising an isolated nucleic acid molecule of Claim 1 and a component selected from the group consisting of an excipient, an adjuvant and a carrier.

7. A method to produce a protein encoded by an isolated nucleic acid molecule of Claim 1, said method comprising culturing a cell transformed with a nucleic acid molecule encoding said protein.

8. (Once Amended) The method of Claim 7, wherein said nucleic acid molecule encodes a protein having an amino acid sequence SEQ ID NO:9.

9. (Once Amended) The method of Claim 7, wherein said nucleic acid molecule comprises a nucleic acid sequence SEQ ID NO:8.

Sub B2 10. (Once Amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated nucleic acid molecule encoding a protein comprising an amino acid sequence SEQ ID NO:9; (b) an isolated nucleic acid molecule encoding a protein comprising an at least 6 consecutive amino acid portion identical in sequence to an at least 6 consecutive amino acid portion of SEQ ID NO:9; and (c) a nucleic acid molecule complementary to a nucleic acid molecule of (a) or (b).

11. (Once Amended) The nucleic acid molecule of Claim 10, wherein said nucleic acid molecule encodes a protein having an amino acid sequence SEQ ID NO:9.

A1 12. A composition comprising an isolated nucleic acid molecule of Claim 10 and a component selected from the group consisting of an excipient, an adjuvant and a carrier.

13. A method to produce a protein encoded by an isolated nucleic acid molecule of Claim 10, said method comprising culturing a cell transformed with a nucleic acid molecule encoding said protein.

14. (Once Amended) The method of Claim 13, wherein said nucleic acid molecule encodes a protein having an amino acid sequence SEQ ID NO:9.

15. (Once Amended) The method of Claim 13, wherein said nucleic acid molecule comprises a nucleic acid sequence SEQ ID NO:8.

REMARKS

1. Restriction requirement under 35 U.S.C. 121

The Examiner restricted the claims into 6 groups as set forth in Paper No. 5. Applicants elect Group I with traverse.

A. Applicants traverse the restriction between Groups I and II. M.P.E.P. § 803 which states "if the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to distinct or independent inventions." Applicant submits that since the method of Group II requires the nucleic acid molecule of Group I, these groups are sufficiently small and so closely related as to be capable of examination together. The restriction requirements in this case only serve to increase the prosecution expense to the Applicant and to the Patent and Trademark Office.

In any event, if the elected claims of Group I are found allowable, Applicant reserves the right to amend the claims of Group II to be commensurate in scope with the product claims of Group I, and to request that the claims of Group II that depend from or otherwise include all the limitations of the allowable product be rejoined and examined for patentability. In re Brouwer, 37 USPQ2d 1663 (Fed. Cir. 1996); In re Ochiai, 37 USPQ2d 1127 (Fed. Cir. 1995).

Applicant reserves the right to traverse restrictions between Groups II-VI in subsequent divisional applications. Applicant also reserves the right to file a divisional application relating to these claims without the necessity of filing a terminal disclaimer.

B. The Examiner further restricted the case to a single sequence identifier. Applicants elect nucleic acid sequence SEQ ID NO:8, which encodes protein SEQ ID NO:9. Applicants

further note that SEQ ID NO:10 represents the complement of SEQ ID NO:8 and argue that SEQ ID NO:10 should therefore be examined with SEQ ID NOs. 8 and 9.

In the event the Examiner has any questions regarding this application, the Examiner is invited to contact the Applicant's undersigned representative at (970)493-7272.

Respectfully submitted,

Dated: August 6, 2002



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claims 16-23 were canceled without prejudice or disclaimer of the subject matter thereof.

Claims 1, 2, 8-11 and 14-15 were amended without prejudice or disclaimer of the subject matter thereof, as follows (Claims 3-7 and 12-13 are presented below unamended for the Examiner's convenience):

1. (Once Amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated canine cDNA or mRNA nucleic acid molecule that hybridizes with a nucleic acid molecule consisting of a nucleic acid sequence selected from the group consisting of SEQ ID NO:8[, and SEQ ID NO:10[, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:32, SEQ ID NO:34, SEQ ID NO:35, and SEQ ID NO:37.] under conditions comprising (i) hybridizing in a solution comprising 1X SSC in the absence of nucleic acid helix destabilizing agents, at a temperature of about 37°C and (ii) washing in a solution comprising 1X SSC in the absence of nucleic acid helix destabilizing agents, at a temperature of about 56°C; (b) an isolated nucleic acid molecule comprising an at least 20 consecutive nucleotide portion identical in sequence to an at least 20 consecutive nucleotide portion of a nucleic acid sequence selected from the group consisting of SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:38, SEQ ID NO:40, SEQ ID NO:41, and SEQ ID NO:43; and (c) an isolated nucleic acid molecule comprising an at least 40 consecutive nucleotide portion identical in sequence to an at least 40 consecutive nucleotide portion of a nucleic acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:22, SEQ ID NO:29, SEQ ID NO:31, SEQ ID NO:44, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:75, SEQ ID NO:76, and SEQ ID NO:77].

2. (Once Amended) The nucleic acid molecule of Claim 1, said nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of [SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:7,] SEQ ID NO:8[, and SEQ ID NO:10[, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:75, SEQ ID NO:76, and SEQ ID NO:77].

3. A recombinant molecule comprising a nucleic acid molecule as set forth in Claim 1 operatively linked to a transcription control sequence.

4. A recombinant virus comprising a nucleic acid molecule as set forth in Claim 1.

5. A recombinant cell comprising a nucleic acid molecule as set forth in Claim 1.
6. A composition comprising an isolated nucleic acid molecule of Claim 1 and a component selected from the group consisting of an excipient, an adjuvant and a carrier.
7. A method to produce a protein encoded by an isolated nucleic acid molecule of Claim 1, said method comprising culturing a cell transformed with a nucleic acid molecule encoding said protein.

8. (Once Amended) The method of Claim 7, wherein said nucleic acid molecule [is selected from the group consisting of: a nucleic acid molecule that] encodes a protein having an amino acid sequence [selected from the group consisting of SEQ ID NO:3,] SEQ ID NO:9, SEQ ID NO:12, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:24, SEQ ID NO:27, SEQ ID NO:30, SEQ ID NO:33, SEQ ID NO:36, SEQ ID NO:39, SEQ ID NO:42, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74].

9. (Once Amended) The method of Claim 7, wherein said nucleic acid molecule comprises a nucleic acid sequence [selected from the group consisting of SEQ ID NO:2, SEQ ID NO:5,] SEQ ID NO:8, SEQ ID NO:11, SEQ ID NO:14, SEQ ID NO:17, SEQ ID NO:20, SEQ ID NO:23, SEQ ID NO:26, SEQ ID NO:29, SEQ ID NO:32, SEQ ID NO:35, SEQ ID NO:38, SEQ ID NO:41, SEQ ID NO:44, SEQ ID NO:47, SEQ ID NO:50, SEQ ID NO:53, SEQ ID NO:56, SEQ ID NO:59, SEQ ID NO:62, SEQ ID NO:65, SEQ ID NO:68, SEQ ID NO:71, SEQ ID NO:73, and SEQ ID NO:76].

10. (Once Amended) An isolated nucleic acid molecule selected from the group consisting of: (a) an isolated nucleic acid molecule encoding a protein comprising an amino acid sequence [selected from the group consisting of SEQ ID NO:3,] SEQ ID NO:9, SEQ ID NO:12, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:24, SEQ ID NO:27, SEQ ID NO:30, SEQ ID NO:33, SEQ ID NO:36, SEQ ID NO:39, SEQ ID NO:42, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74]; (b) an isolated nucleic acid molecule encoding a protein comprising an at least 6 consecutive amino acid portion identical in sequence to an at least 6 consecutive amino acid portion of [a sequence selected from the group consisting of] SEQ ID NO:9, SEQ ID NO:24, SEQ ID NO:33, and SEQ ID NO:36; (c) an isolated nucleic acid molecule encoding a protein comprising an at least 15 consecutive amino acid portion identical in sequence to an at least 15 consecutive amino acid portion of a sequence selected from the group consisting of SEQ ID NO:12, SEQ ID NO:27, SEQ ID NO:39, and SEQ ID NO:42; (d) an isolated nucleic acid molecule encoding a protein comprising an at least 42 consecutive amino acid portion identical in sequence to an at least 42 consecutive amino acid portion of a sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:30, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74]; and [(c)] (c) a nucleic acid molecule complementary to a nucleic acid molecule of (a)[,]or (b)[, (c) or (d)].

11. (Once Amended) The nucleic acid molecule of Claim 10, wherein said nucleic acid molecule [is selected from the group consisting of: a nucleic acid molecule that] encodes a protein having an amino acid sequence [selected from the group consisting of SEQ ID NO:3,] SEQ ID NO:9, SEQ ID NO:12, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:24, SEQ ID NO:27, SEQ ID NO:30, SEQ ID NO:33, SEQ ID NO:36, SEQ ID NO:39, SEQ ID NO:42, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74].

NO:27, SEQ ID NO:30, SEQ ID NO:33, SEQ ID NO:36, SEQ ID NO:39, SEQ ID NO:42, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74}.

12. A composition comprising an isolated nucleic acid molecule of Claim 10 and a component selected from the group consisting of an excipient, an adjuvant and a carrier.

13. A method to produce a protein encoded by an isolated nucleic acid molecule of Claim 10, said method comprising culturing a cell transformed with a nucleic acid molecule encoding said protein.

14. (Once Amended) The method of Claim 13, wherein said nucleic acid molecule [is selected from the group consisting of: a nucleic acid molecule that] encodes a protein having an amino acid sequence [selected from the group consisting of SEQ ID NO:3,] SEQ ID NO:9[, SEQ ID NO:12, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:24, SEQ ID NO:27, SEQ ID NO:30, SEQ ID NO:33, SEQ ID NO:36, SEQ ID NO:39, SEQ ID NO:42, SEQ ID NO:45, SEQ ID NO:48, SEQ ID NO:51, SEQ ID NO:54, SEQ ID NO:57, SEQ ID NO:60, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:69, and SEQ ID NO:74].

15. (Once Amended) The method of Claim 13, wherein said nucleic acid molecule comprises a nucleic acid sequence [selected from the group consisting of SEQ ID NO:2, SEQ ID NO:5,] SEQ ID NO:8[, SEQ ID NO:11, SEQ ID NO:14, SEQ ID NO:17, SEQ ID NO:20, SEQ ID NO:23, SEQ ID NO:26, SEQ ID NO:29, SEQ ID NO:32, SEQ ID NO:35, SEQ ID NO:38, SEQ ID NO:41, SEQ ID NO:44, SEQ ID NO:47, SEQ ID NO:50, SEQ ID NO:53, SEQ ID NO:56, SEQ ID NO:59, SEQ ID NO:62, SEQ ID NO:65, SEQ ID NO:68, SEQ ID NO:71, SEQ ID NO:73, and SEQ ID NO:76].